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PATENT

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Applicants : John T. Mulligan and John C. Tabone  
Application No. : 09/872,761  
Confirmation No. : 9920  
Filed : June 01, 2001  
For : METHODS FOR IMPROVING THE SEQUENCE FIDELITY OF  
SYNTHETIC DOUBLE-STRANDED OLIGONUCLEOTIDES

Examiner : Frank Wei Min Lu, Ph.D.  
Art Unit : 1634  
Docket No. : 340078.401  
Date : August 20, 2002

Box Non-Fee Amendment  
Commissioner for Patents  
Washington, DC 20231

AMENDMENT & RESPONSE TO RESTRICTION REQUIREMENT

Commissioner:

Please amend the application as follows:

In the Claims:

Please cancel claim 4.

Please amend claims 1, 5, 7 and 8 to read as follows:

B1  
1. (Amended) A method for improving the sequence fidelity of synthetic double-stranded oligonucleotides, comprising subjecting synthetic double-stranded oligonucleotides to preparative column chromatography under denaturing conditions sufficient to separate synthetic double-stranded oligonucleotides into two populations of which one population is enriched for synthetic failures and the other population is depleted of synthetic failures.

B2  
5. (Amended) A method according to any one of claims 1-3 wherein the oligonucleotides comprise synthetic double-stranded DNA.

B3  
7. (Amended) A method according to any one of claims 1-3, wherein the side product separated is a molecule containing a uridine, apurinic, apyrimidinic or diaminopurine residue.

8. (Amended) A method according to any one of claims 1-3, wherein the double-stranded oligonucleotides are synthesized chemically.

#### REMARKS

In view of the response set forth below to the Restriction Requirement, claim 4 has been cancelled without prejudice. Applicants expressly reserve the right to prosecute the subject matter of this claim in a future related application. Claims 1, 5, 7 and 8 have been amended for consistency with the election under the Restriction Requirement. No new matter has been added. Therefore, claims 1-3 and 5-10 are now pending.

In the Office Action dated July 26, 2002, Applicants were requested to make a group election and species election in order for the Patent and Trademark Office to initiate examination. Applicants hereby elect Group I (claims 1-3 and 5-10), drawn to a method for improving the sequence fidelity of synthetic double-stranded oligonucleotide using column chromatography. In addition, Applicants hereby elect DHPLC as the single disclosed species in order to initiate searching for examination.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version With Markings to Show Changes Made.**"



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PATENT TRADEMARK OFFICE

Respectfully submitted,  
Seed Intellectual Property Law Group PLLC

A handwritten signature in black ink, appearing to read "Richard G. Sharkey", written over a horizontal line.

Richard G. Sharkey, Ph.D.  
Registration No. 32,629